

FIG. 1

Prior Art

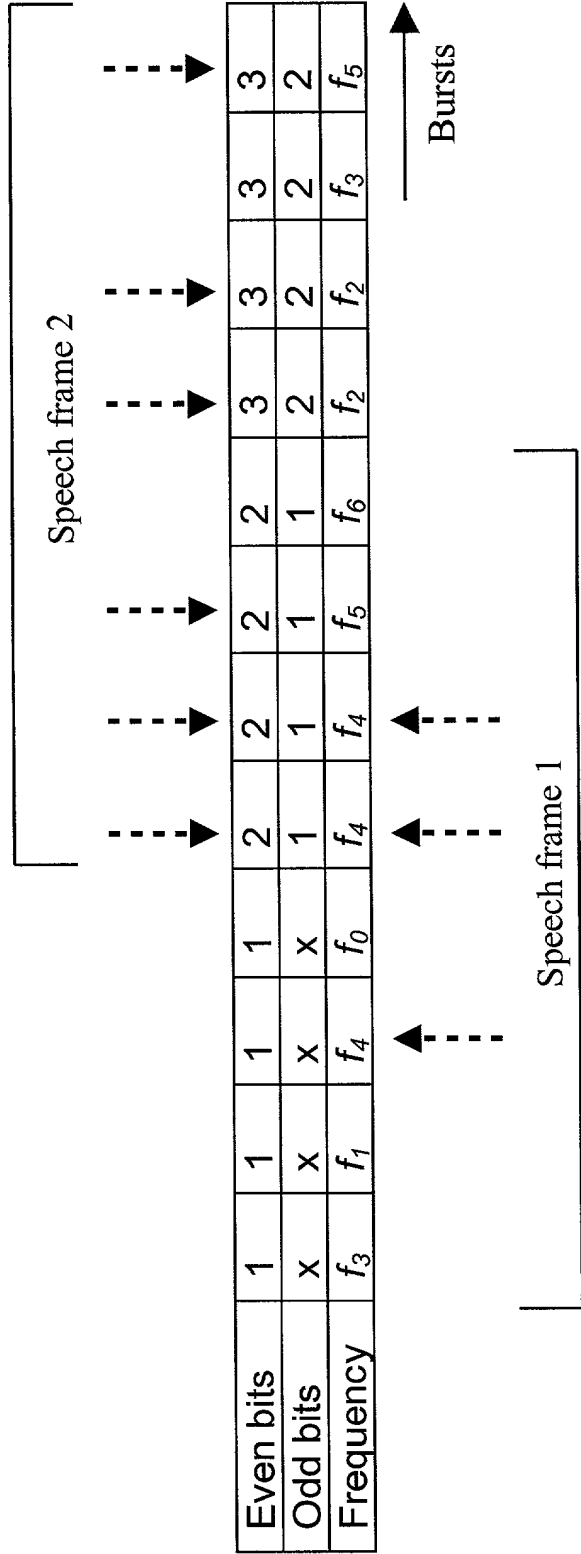


FIG. 2 Balachandran-Kang-Sanwal-Seymour 21-1-1-3-12

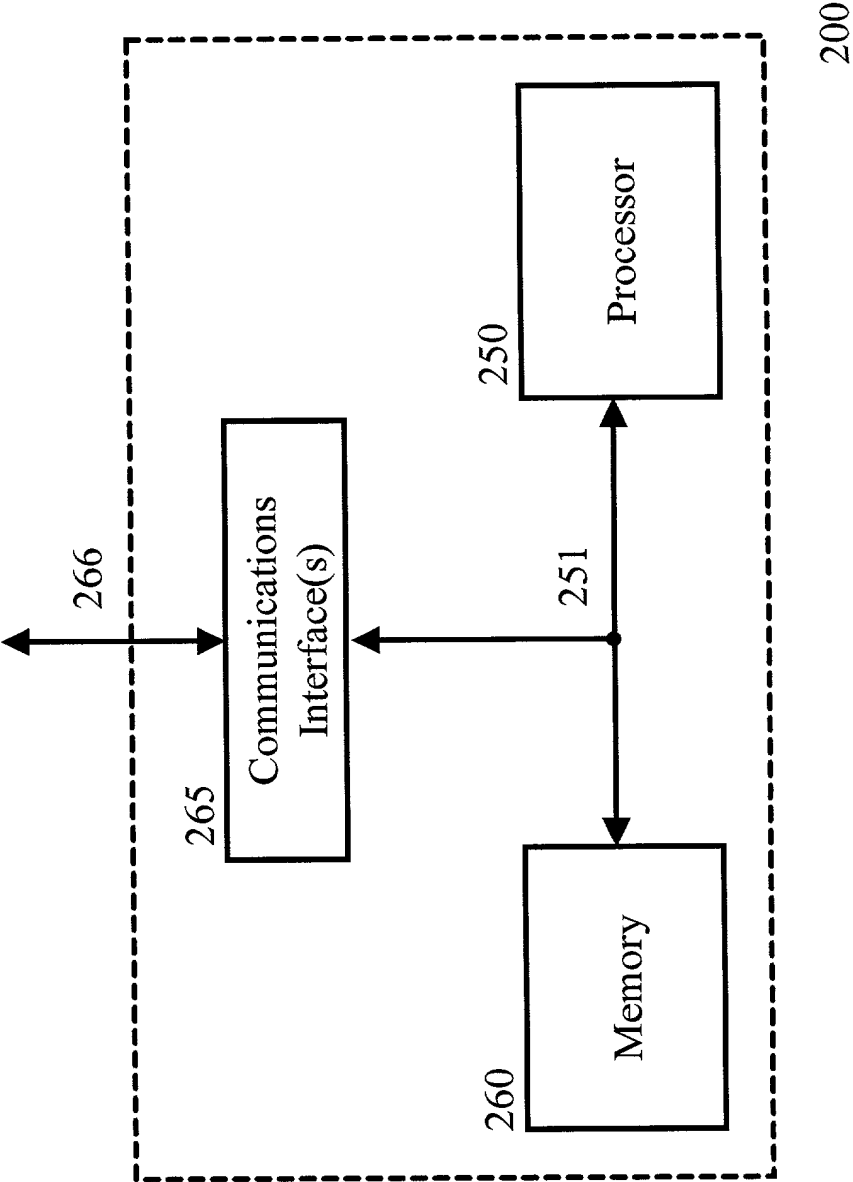


FIG. 3

Even bits	1	1	1	1	2	2	2	2	3	3	3	3
Odd bits	x	x	x	x	1	1	1	1	2	2	2	2
Frequency	f_3	f_1	f_4	f_0	f_7	f_8	f_5	f_6	f_1	f_3	f_0	f_4

Speech frame 1

Bursts

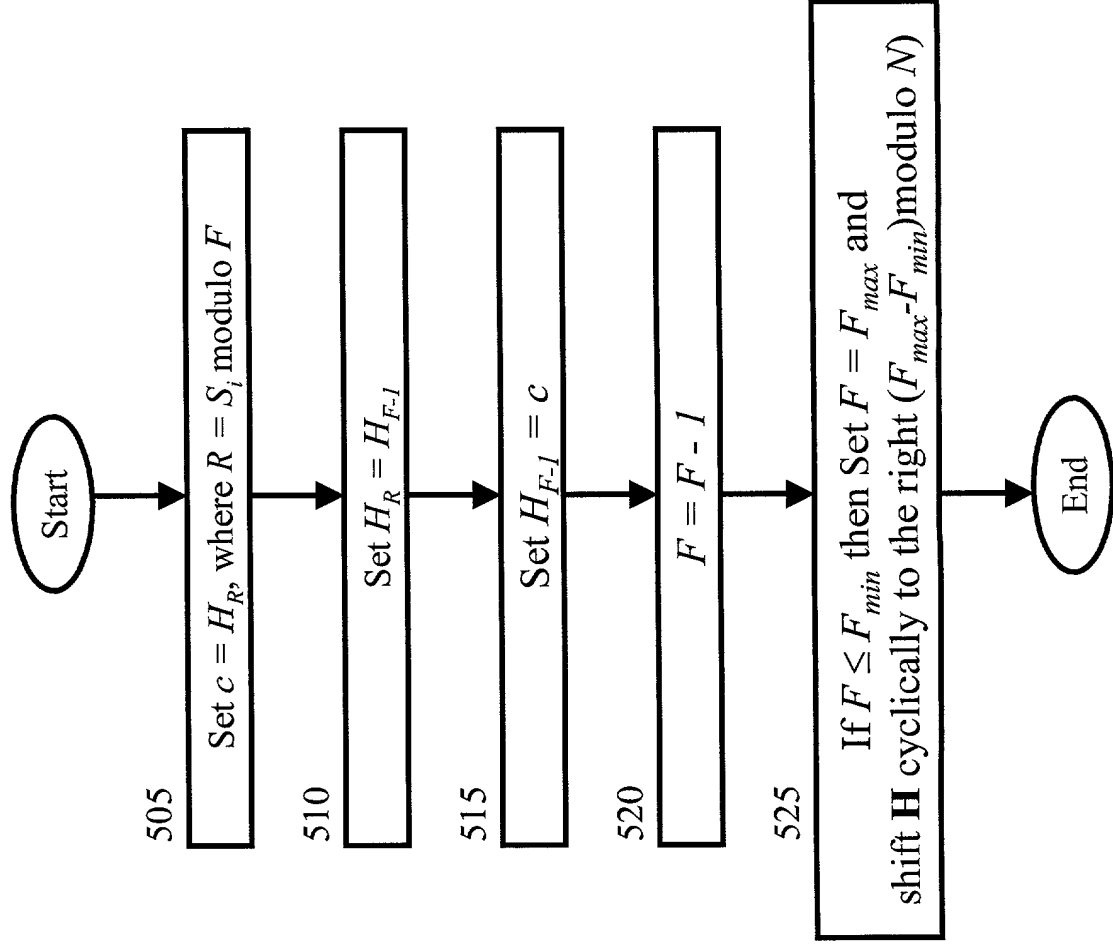
FIG. 4

Prior Art

Parameter	Definition	Range
TDMA Frame Number, <i>FN</i>	TDMA frame number	0 to (26 x 51 x 2048) - 1
Time parameter, <i>T1R</i>	[FN div (26 x 51)] modulo 64	0 to 63
Time parameter, <i>T2</i>	FN modulo 26	0 to 25
Time parameter, <i>T3</i>	FN modulo 51	0 to 50
Hopping Sequence Number (<i>HSN</i>)	Used along with other time parameters to generate a pseudo-random hopping sequence	0 to 63
<i>NBIN</i>	Number of bits required to represent <i>N</i>	
<i>xor</i>	Bit-wise exclusive or of 8 bit binary operands	

Table One

FIG. 5



column 1

Burst Number	Hopping index	A	Compute Hop Frequency	H	F
--	--	--	--	$H = \{1\ 3\ 4\ 6\ 2\ 0\ 5\ 7\}$	$F = 4$
0	1	$A = \{1\ 3\ 4\ 6\}$	$H_{(1 \bmod 4)} = H_1 = 3$	$H = \{1\ 6\ 4\ 3\ 2\ 0\ 5\ 7\}$	$F = 3$
1	5	$A = \{1\ 6\ 4\}$	$H_{(5 \bmod 3)} = H_2 = 4$	$H = \{1\ 6\ 4\ 3\ 2\ 0\ 5\ 7\}$	$F = 2$
2	2	$A = \{1\ 6\}$	$H_{(2 \bmod 2)} = H_0 = 1$	$H = \{6\ 1\ 4\ 3\ 2\ 0\ 5\ 7\}$	$F = 1$
3	4	$A = \{6\}$	$H_{(4 \bmod 1)} = H_0 = 6$	$H = \{6\ 1\ 4\ 3\ 2\ 0\ 5\ 7\}$ $H = \{2\ 0\ 5\ 7\ 6\ 1\ 4\ 3\}$	$F = 0,$ $F = 4$
4	1	$A = \{2\ 0\ 5\ 7\}$	$H_{(1 \bmod 4)} = H_1 = 0$	$H = \{2\ 7\ 5\ 0\ 6\ 1\ 4\ 3\}$	$F = 3$
•	•	•	•	•	•
•	•	•	•	•	•
•	•	•	•	•	•

Table Two